

D. Remarks

The claims are 1, 3, 8-41 and 43-47, with claims 1, 23 and 41 being independent. Claims 2, 4-7 and 42 have been cancelled. Claims 3, 16-20, 22 and 37-40 have been withdrawn from consideration as being directed to non-elected species. Claim 1 has been amended to include the features of cancelled claim 2, to specify that at least one of the cyclic groups A and B has a substituent, in accordance with the specification, and to improve its form. Claims 8-10, 12-15, 36 have been amended to reflect the cancellation of claim 2, the changes in claim 1 and to improve their form. Claims 23 and 41 have been rewritten in independent form and amended to resolve section 112, second paragraph, issues. Claims 35, 43 and 44 have been amended to resolve section 112, second paragraph, issues. Also, Applicants have amended the specification to correct several informalities. The change to the group name on page 17 is supported by, inter alia, Ex. Comp. No. 273. No new matter has been added. Reconsideration of the claims is expressly requested.

The Examiner required Applicants to affirm their previously-made oral election. Applicants hereby affirm this election. Since all non-elected claims depend from generic claims that are presently under consideration, all non-claims are entitled to be considered once the elected species are deemed patentable.

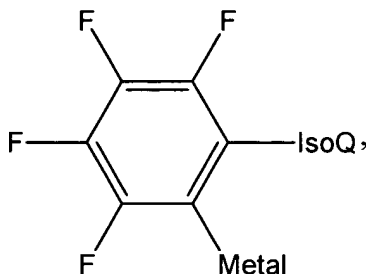
The Examiner indicated in the Office Action that none of the certified copies of the priority documents have been submitted. Applicants have since filed such documents on November 26, 2003 and respectfully request that the Examiner acknowledge their receipt.

Also, Applicants filed a Third Information Disclosure Statement, based on the International Preliminary Examiner Report (IPER) in the parent application, on August

26, 2003. In that regard, for the Examiner's convenience, Applicants enclose herewith an English language translation of the IPER, which has now become available. Consideration of the documents cited in the August 26, 2003 Information Disclosure Statement is respectfully requested.

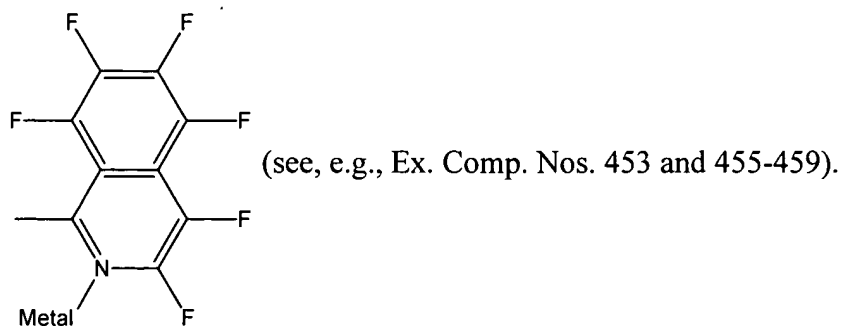
The specification is objected to by the Examiner, because of several alleged informalities. Specifically, the Examiner alleged that the scope of a "1-(3,4,5,6-tetrafluoromethyl)phenyl group" recited, for example, at page 16, lines 25-26, a "3,4,5,6,7,8-hexafluoro group" recited, for example, at page 17, line 1, and a "4-fluorooxyphenyl group" recited, for example, at page 17, lines 14-15, is not clear.

With respect to the 1-(3,4,5,6-tetrafluoromethyl)phenyl group, this group is represented by the following structure and is believed to be proper:

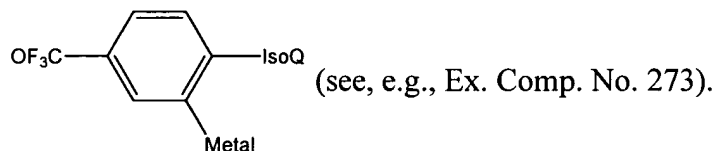


wherein IsoQ is an isoquinolyl group (see e.g., Ex. Comp. No. 466).

With respect to the 3,4,5,6,7,8-hexafluoro group, this group is represented by the following structure and is believed to be proper:



With respect to the 4-fluorooxyphenyl group, this group should be a 4-fluoromethyloxyphenyl group, which is represented by the following structure:



Accordingly, Applicants have amended the specification and claim 35 to correct this typographical error, and respectfully request withdrawal of the objection to the specification.

Claims 23-35 and 41-47 stand rejected under 35 U.S.C. § 112, second paragraph, as being allegedly indefinite.

With respect to claim 23, Applicants have rewritten this claim in independent form and changed the phrase “non-adjacent” to --non-neighboring--.

With respect to claims 32 and 35, the above discussion of the objection to the specification and the amendment to claim 35 are believed to fully address this issue.

With respect to claim 41, Applicants have rewritten this claim in independent form.

With respect to claims 43 and 44, Applicants have amended these claims to provide a full description of the intended partial structures.

Accordingly, in view of the above amendments and remarks, Applicants respectfully request withdrawal of the indefiniteness rejection.

Claims 1, 2, 7-15, 21, 36, 41, 42 and 44-47 stand rejected under 35 U.S.C. § 102(e) as being allegedly anticipated by U.S. Patent Application Publication No. 2001/0019782 A1 (Igarashi). Claims 1, 2, 8-13, 15, 21, 36, 41, 42 and 44-47 stand rejected under 35 U.S.C. § 102(e) as being allegedly anticipated by U.S. Patent Application Publication No. 2003/0072964 A1 (Kwong). Claims 1, 2, 7-15, 21, 23-36 and 41-47 stand rejected under 35 U.S.C. § 103(a) as being obvious from Igarashi or Kwong. The grounds of rejection are respectfully traversed.

Prior to addressing the merits of rejection, Applicants would like to briefly review some of the features and advantages of the presently claimed invention. The present invention is, in part, directed to a metal coordination compound represented by formula (3), having different bidentate ligands L and L'. In particular, ligand L has an isoquinolyl group B and at least one of the cyclic groups A and B has a specific substituent. Some of the compounds encompassed by the presently claimed invention include Example Compounds No. 147, 162, 173, 184, 195, 206, 217, 239, 261, 276, 281-296, 306, 310, 329-344, 356, 358, 360, 364, 374, 385, 395, 417, 424, 435, 446, 456, 467, 470, 471, 489, 500, 511, 522, 533, 544, 555, 566, 577, 588, 599, 622 and 636.

Igarashi discloses a metal coordination compound of formula (24), for example, on page 3, which is capable of having substituents $(R^{11})_{m^1}$ and $(R^{12})_{m^2}$ for its cyclic groups. However, Applicants respectfully submit that the disclosure in Igarashi is not sufficient to anticipate the present claims or render them obvious.

The M.P.E.P. states:

[w]hen the compound is not specifically named, but instead it is necessary to select portions or teachings within a reference and combine them, e.g., select various substituents from a list of alternatives given for placement at specific sites on a generic chemical formula to arrive at a specific composition, anticipation can only be shown if the classes of substituents are sufficiently limited or well defined. M.P.E.P. § 2131.02.

As a matter of law, in order for a reference to anticipate a claim, its disclosure must

“‘clearly and unequivocally’ direct[] those skilled in the art” to make the selection

Applicants have made. In re Arkley, 172 U.S.P.Q. (BNA) 524, 526 (C.C.P.A. 1972).

There is no anticipation, for example, if a reference presents dozens of choices without highlighting the claimed substituent and disclosing the claimed ratio. See In re Kollman, 201 U.S.P.Q. (BNA) 193 (C.C.P.A. 1979).

Igarashi provides a list of possible substituents R¹¹ and R¹² on pages 20-21, which spans more than one column. Hundreds of possible substituents, which result from different cited permutations based on the disclosure in Igarashi, are outside of the scope of the present claims. Clearly, by simply reciting a large laundry list of possible substituents Igarashi cannot anticipate the present invention, which requires that at least one specific substituent be present. See In re Wiggins, 179 U.S.P.Q. (BNA) 421, 425 (C.C.P.A. 1973).¹ Furthermore, even though a halogen atom and a cyano group are mentioned in a preferred list of substituents on page 21, the Examiner will note that there is yet an even more preferred list of substituents, which does not include a single group as presently claimed,

¹/ There can be no anticipation where the reference is so broad that the likelihood of arriving at the claimed invention would be the same as discovering the combination of a save by an inspection of its dials. See Ex Parte Garvey, 41 U.S.P.Q. (BNA) 583 (P.O.B.A. 1939).

and a skilled artisan, without the benefit of hindsight, would not readily narrow the choices to a less inclusive list when the most preferred and even shorter list is available.

In fact, Applicants respectfully submit that Igarashi teaches away from having substituents R¹¹ and R¹². None of the compounds specifically identified in Igarashi, which have two different bidentate ligands, have substituents R¹¹ and R¹².

To select a compound commensurate with the present invention, a person skilled in the art would have to:

- (a) chose to have two different bidentate ligands;
- (b) choose to have at least one of substituents R¹¹ and R¹²;
- (c) choose R¹¹ and R¹² to be one of the presently claimed substituents.

Neither of these choices can be considered in a vacuum, i.e., there must be a combined motivation to make each of above selections.

Applicants respectfully submit that in view of the available possibilities, Igarashi does not “‘clearly and unequivocally’ direct[] those skilled in the art” to make the selection Applicants have made. In re Arkley, 172 U.S.P.Q. (BNA) at 526. A skilled artisan would not be able to at once envisage the presently claimed compounds based on the vast number of possible substituents (if at all present) and with no guidance to select those presently claimed. Furthermore, a prima facie case of obviousness cannot be made, because at least the requisite motivation to assemble the presently claimed structure is absent in view of, for example, a fact that Igarashi teaches away from the present invention. Therefore, it is clear that the present invention is patentable over Igarashi.

Kwong discloses a metal coordination compound that can have different bidentate ligands. However, Kwong cannot anticipate the presently claimed invention or render it unpatentable for at least the same reasons as Igarashi.

Specifically, as disclosed in paragraph [0011], the phenyl group and the isoquinolyl group need not be substituted, i.e., R^1 to R^{10} can each be a hydrogen atom. Furthermore, there are hundreds of possible substituents disclosed in paragraph [0011] of Kwong, which are outside of the scope of the present claims. Also, according to Kwong, the second ligand need not be a bidentate ligand. Therefore, the choices that need to be made in view of Kwong are as follows:

- (a) chose to have a second bidentate ligands;
- (b) choose the second bidentate ligand to have two cyclic groups;
- (c) chose a bidentate ligand with one cyclic group bonded to the metal through the nitrogen and the second cyclic group bonded to the metal through carbon;
- (d) choose at least one of substituents R^1 to R^{10} that is not hydrogen;
- (e) choose at least one of substituents R^1 to R^{10} that is either of the presently claimed substituents by ignoring an overwhelming amount of substituents, which are outside of the scope of the present claims.

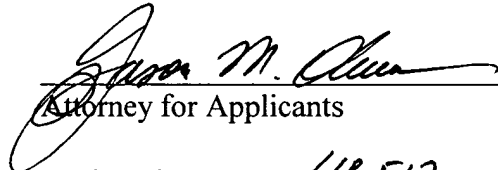
As discussed above, neither of these choices can be considered in a vacuum, i.e., there must be a combined motivation to make each of above selections. There are clearly no “blaze marks” in Kwong to made the above choices. In fact, the disclosure of this reference teaches away from them. For instance, in all exemplified compounds with a second bidentate ligands, this second bidentate ligand does not have two cyclic groups with the presently claimed metal linkage.

Applicants respectfully submit that in view of the available possibilities, Kwong does not “‘clearly and unequivocally’ direct[] those skilled in the art” to make the selection Applicants have made. In re Arkley, 172 U.S.P.Q. (BNA) at 526. A skilled artisan would not be able to at once envisage the presently claimed compounds from the vast number of possibilities outlined in Kwong without the benefit of impermissible hindsight based on the present application. Furthermore, a prima facie case of obviousness cannot be made, because at least the necessary motivation to make the above choices is absent. Therefore, it is clear that the present invention is patentable over Kwong.

Accordingly, it is clear that the presently claimed invention is patentable over the cited reference, whether this references are considered separately or in combination. Wherefore, Applicants respectfully request that the outstanding rejections be withdrawn and that the present case be passed to issue.

Applicants’ undersigned attorney may be reached in our New York office by telephone at (212) 218-2100. All correspondence should continue to be directed to our address given below.

Respectfully submitted,



Attorney for Applicants
Registration No. 48,512

FITZPATRICK, CELLA, HARPER & SCINTO
30 Rockefeller Plaza
New York, New York 10112-3801
Facsimile: (212) 218-2200

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PATENT COOPERATION TREATY

PCT
NOTIFICATION OF TRANSMITTAL
OF COPIES OF TRANSLATION
OF THE INTERNATIONAL PRELIMINARY
EXAMINATION REPORT

(PCT Rule 72.2)

From the INTERNATIONAL BUREAU

To:

CANON KABUSHIKI KAISHA
 3-30-2, Shimomaruko
 Ohta-ku, Tokyo 146-8501
 Japan



CFE03320WO

Date of mailing (day/month/year) 30 July 2003 (30.07.03)	IMPORTANT NOTIFICATION
Applicant's or agent's file reference CFE03320WO	
International application No. PCT/JP01/10487	International filing date (day/month/year) 30 November 2001 (30.11.01)
Applicant CANON KABUSHIKI KAISHA et al	

1. Transmittal of the translation to the applicant.

The International Bureau transmits herewith a copy of the English translation made by the International Bureau of the international preliminary examination report established by the International Preliminary Examining Authority.

2. Transmittal of the copy of the translation to the elected Offices.

The International Bureau notifies the applicant that copies of that translation have been transmitted to the following elected Offices requiring such translation:

EP,CA,CN,KP,RO,US

The following elected Offices, having waived the requirement for such a transmittal at this time, will receive copies of that translation from the International Bureau only upon their request:

AP,EA,AE,AG,AL,AM,AT,AU,AZ,BA,BB,BG,BR,BY,BZ,CH,CO,CR,CU,CZ,DE,DK,DM,DZ,EE,ES,FI,GB,GD,GE,GH,GM,HR,HU,ID,IL,IN,IS,JP,KE,KG,KR,KZ,LC,LK,LR,LS,LT,LU,LV,MA,MD,MG,MK,MN,MW,MX,MZ,NO,NZ,PH,PL,PT,RU,SD,SE,SG,SI,SK,SL,TJ,TM,TR,TT,TZ,UA,UG,UZ,VN,YU,ZA,ZW,OA

3. Reminder regarding translation into (one of) the official language(s) of the elected Office(s).

The applicant is reminded that, where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary examination report.

It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned (Rule 74.1). See Volume II of the PCT Applicant's Guide for further details.

The International Bureau of WIPO
 34, ch. min des Colmbettes
 1211 Geneva 20, Switzerland

Facsimile No. (41-22) 338.70.10

Authorized officer

Emmanuel BERROD (Fax 338 7010)

Telephone No. (41-22) 338 8389

Translation

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference CFE03320WO	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/JP01/10487	International filing date (day/month/year) 30 November 2001 (30.11.01)	Priority date (day/month/year) 30 November 2000 (30.11.00)
International Patent Classification (IPC) or national classification and IPC C07F 15/00, 19/00, C09K 11/06, H05B 33/14		
Applicant CANON KABUSHIKI KAISHA		

1.	This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
2.	This REPORT consists of a total of <u>5</u> sheets, including this cover sheet. <input checked="" type="checkbox"/> This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT). These annexes consist of a total of <u>4</u> sheets.
3.	This report contains indications relating to the following items: I <input checked="" type="checkbox"/> Basis of the report II <input type="checkbox"/> Priority III <input type="checkbox"/> Non-establishment of opinion with regard to novelty, inventive step and industrial applicability IV <input type="checkbox"/> Lack of unity of invention V <input checked="" type="checkbox"/> Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement VI <input checked="" type="checkbox"/> Certain documents cited VII <input type="checkbox"/> Certain defects in the international application VIII <input type="checkbox"/> Certain observations on the international application

Date of submission of the demand 21 June 2002 (21.06.02)	Date of completion of this report 06 November 2002 (06.11.2002)
Name and mailing address of the IPEA/JP	Authorized officer
Facsimile No.	Telephone No.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/JP01/10487

I. Basis of the report

1. With regard to the elements of the international application:*

- ☐ the international application as originally filed
- ☒ the description:
pages _____ 1-113 _____, as originally filed
pages _____, filed with the demand
pages _____, filed with the letter of _____
- ☒ the claims:
pages _____ 3-47 _____, as originally filed
pages _____, as amended (together with any statement under Article 19
pages _____, filed with the demand
pages _____ 1, 2 _____, filed with the letter of _____ 25 October 2002 (25.10.2002)
- ☒ the drawings:
pages _____ 1/11-11/11 _____, as originally filed
pages _____, filed with the demand
pages _____, filed with the letter of _____
- ☐ the sequence listing part of the description:
pages _____, as originally filed
pages _____, filed with the demand
pages _____, filed with the letter of _____

2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.
These elements were available or furnished to this Authority in the following language _____ which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages _____
- ☐ the claims, Nos. _____
- ☐ the drawings, sheets/fig _____

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).**

* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rule 70.16 and 70.17).

** Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/JP 01/10487

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	1-47	YES
	Claims		NO
Inventive step (IS)	Claims	1-47	YES
	Claims		NO
Industrial applicability (IA)	Claims	1-47	YES
	Claims		NO

2. Citations and explanations

Document 1: Navarro-Ranninger, C., et al. "A cyclometalated Pd(II) complex containing a cytosine model nucleobase." *J. Organomet. Chem.*, 1998, Vol. 558, No. 1-2, pages 103-110 (Document 1 is cited in the international search report.)

Of the compounds expressed by the general formula (1), Document 1 discloses those in which the cyclic group substituent is a nitro group, but through the amendment, compounds in which the cyclic group substituent is a nitro group were excluded. Document 1 neither discloses nor suggests other compounds expressed by the general formula (1). Hence, Claims 1-47 are novel and involve an inventive step.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/JP01/10487

VI. Certain documents cited

1. Certain published documents (Rule 70.10)

Application No.
Patent No.

Publication date
(day/month/year)

Filing date
(day/month/year)

Priority date (valid claim)
(day/month/year)

See supplemental sheet

2. Non-written disclosures (Rule 70.9)

Kind of non-written disclosure

Date of non-written disclosure
(day/month/year)

Date of written disclosure
referring to non-written disclosure
(day/month/year)

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/JP 01/10487

Supplemental Box

(To be used when the space in any of the preceding boxes is not sufficient)

Continuation of: VI. 1.

JP 2001-181616 A (Fuji Photo Film Co., Ltd.) 'EX' (Family: none)	03 July 2001	27 December 1999	
JP 2001-181617 A (Fuji Photo Film Co., Ltd.) 'EX' (Family: none)	03 July 2001	27 December 1999	
US 2001/0019782 A1 (Igarashi et al.) 'EX'	06 September 2001	27 December 2000	27 December 1999
US 2002/0055014 A1 (Fuji Photo Film Co., Ltd.) 'EX' [0199]-[0205] (Family: none)	09 May 2002	24 August 2001	24 August 2000